

WHAT IS CLAIMED IS:

1. An oblique contact ball bearing, wherein oil having a kinematic viscosity in the range of 1 - 30 mm²/s at 20°C is applied to a part where raceways of inner and outer rings and
5 balls are in contact with each other.
2. The oblique contact ball bearing according to Claim 1, wherein the kinematic viscosity is 5 - 27 mm²/s.
3. The oblique contact ball bearing according to Claim 1, wherein the kinematic viscosity is 5 - 12 mm²/s.
- 10 4. The oblique contact ball bearing according to Claim 1, wherein the oil is the rust preventive oil.
5. The oblique contact ball bearing according to Claim 1, wherein the balls are axially provided in double rows.
6. The oblique contact ball bearing according to Claim 5,
15 wherein pitch circle diameters of the balls in the both rows are different to each other.
7. The oblique contact double row ball bearing according to Claim 6, wherein a contact angle of the ball in one of the rows and a contact angle of the ball in the other row have a
20 same direction.
8. A bearing device for supporting a pinion shaft comprising:
a first roller bearing for supporting one-end side of the pinion shaft;
a second roller bearing for supporting another-end side
25 of the pinion shaft, wherein
at least one of the roller bearings is an oblique contact double row ball bearing, and
oil having a kinematic viscosity in the range of 1 - 30
mm²/s at 20°C is applied to a part where raceways of inner and
30 outer rings and balls are in contact with each other in the oblique contact double row ball bearing.
9. The bearing device for supporting the pinion shaft according to Claim 8, wherein the kinematic viscosity is 5 -

27 mm²/s.

10. The bearing device for supporting the pinion shaft according to Claim 8, wherein the kinematic viscosity is 5 - 12 mm²/s.

5 11. The bearing device for supporting the pinion shaft according to Claim 8, wherein the both bearings are the oblique contact double row ball bearings in which pitch circle diameters in an axial direction are different to each other.

10 12. The bearing device for supporting the pinion shaft according to Claim 8, wherein a contact angle of the ball in one of the rows and a contact angle of the ball in the other row have a same direction.